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## Mondor's Disease

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CARCINOMA OF THE BREAST, the leading cause of death among women, is receiving ever increasing attention in both the medical literature and the lay press. Arguments concerning its treatment can be found in abundance, but its clinical diagnosis is not given the attention it warrants. The most fearful event that can befall a woman is the discovery of a breast mass. She visits her physician with foreboding and assumes she has cancer before entering his office. One of the greatest gifts the physician can bestow upon his patient is the reassurance that the mass in question is not malignant.

Mondor's disease, a sclerosing thrombophlebitis of the veins of the chest wall, is a disease entity which can be diagnosed clinically and requires only symptomatic therapy. However, in order to properly diagnose this disease state, a physician must be aware of its existence and its clinicopathologic course.

The first report of a case of thrombophlebitis of the thoracoepigastric veins was made by Fagge in 1869.<sup>1</sup> However, it was not until 1939, when

Henri Mondor<sup>2</sup> presented four cases with a discussion of the clinicopathologic process, that the understanding of the disease was placed on a firm foundation. Subsequent reports by Adair,<sup>3</sup> Mondor and Bertrand,<sup>4</sup> Farrow<sup>5</sup> and Bucher<sup>6</sup> helped clarify the process until at present the disease is a well-recognized entity.

The following study was prompted by the recent opportunity to treat two patients with Mondor's disease. Its purpose is to familiarize all practicing physicians with this interesting disease entity.

### Reports of Cases

CASE 1. A 47-year-old woman with known severe fibrocystic disease of both breasts was seen with a complaint of a one-day history of a tender mass in the upper outer quadrant of the left breast. There was no history of recent surgical operation, infection or trauma.

On physical examination, the patient was seen to have extensive bilateral fibrocystic disease; however, in the symptomatic area there was an oblong tender mass which was easily seen with the left arm raised. A diagnosis of thrombophlebitis of the lateral thoracic vein, in an acute stage, was made, and the patient was treated with analgesics, moist heat and reassurance. When reexamined one month later, the mass had completely resolved.

CASE 2. A 23-year-old woman noted a sore, bruised area on the outer aspect of the right breast three weeks before being seen. One day before examination, the patient noticed a firm cord in the involved area. There was no history of infection, trauma or recent surgical operation.

On examination, with the patient's hands at her side, no obvious mass was noted. However, when the right arm was raised, a firm fibrous cord along the course of the lateral thoracic vein was both seen and palpated. There was no acute inflammation present at this time and consequently reassurance to the patient as to the nature of the problem was all that was required.

### Clinico-Pathologic Characteristics

Mondor's disease occurs three times as frequently in women as in men, and most patients have been in the age range of 30 to 60 years old. However, as can be seen by the second case reported here and the report by Camiel and Benninghoff,<sup>7</sup> it is also found in women in their twenties.

The most prominent clinical feature is the sud-

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den appearance of a cord-like thrombosed vein which is at first red and tender and subsequently changes into a painless, tough fibrous band. The patient's attention is usually called to the involved area by the pain, movement tending to accentuate the discomfort. There are no systemic symptoms, and if a biopsy specimen of the involved area is taken at this time it will show an acute thrombophlebitis with thrombus formation. Both sides of the breast have an equal incidence of involvement.

If the patient does not seek medical attention at this time, the tenderness will gradually disappear while the thrombus undergoes organization and eventually recanalization of the vein. In the end stage of the disease process, a thick-walled vein remains which, on clinical examination, has a hard rope-like appearance and on occasion may result in a furrowing of the breast.<sup>8</sup>

The veins involved are the lateral thoracic, thoracoepigastric and the superior epigastric; therefore the upper and inner portions of the breast or chest wall can never be involved by the disease process.

### Cause

As in most entities where the exact causative agent is not known, there are many theories as to the initiating factor. The factors reportedly involved include tight-fitting dresses and tight bras, shaving of the axilla, infections, blood dyscrasias, suppurative sebaceous cysts and hidradenitis suppurativa.

Skipworth and associates<sup>9</sup> reported a case associated with lupus erythematosus, while Hermann,<sup>10</sup> in a comprehensive article, reported four cases occurring after operative procedures. In his review, he reported five cases as of idiopathic origin and noted that most of the cases occurring after operative procedures were in postmenopausal patients while the majority of the idiopathic cases occurred in menstruating patients.

### Diagnosis and Treatment

The two disease entities most likely to be confused with Mondor's disease are breast abscess and inflammatory carcinoma. The differential diagnosis can be made if one considers the sudden onset of Mondor's disease, its location and the physical findings of a localized process restricted to a palpable vein.

The treatment is entirely symptomatic and consists of hot, wet dressings and anodynes for relief of pain. Other recommended treatment modalities have included enzymes, corticosteroids, antibiotics, vaccines and anticoagulants. However, none of the latter modalities have been proven to hasten the resolution of the pathologic process.

The disease process runs its course in from three weeks to six months. Therefore, the major benefit the physician can provide his patient is reassurance.

### Conclusion

Mondor's disease is a localized thrombophlebitis of the veins of the thoracoepigastric area. It is clinically recognized by its localization to a definable venous channel and may be recognized in its acute or phlebitic stage or in its chronic or fibrotic stage. Its importance is that it must be differentiated from an inflammatory breast carcinoma in the early stage and a scirrhous carcinoma in the late stage. The treatment is symptomatic and includes reassurance to the patient as to the exact nature of the process.

### Summary

Thrombophlebitis of the thoracoepigastric veins may be mistaken for carcinoma of the breast. An understanding of the pathology involved in this form of sclerosing phlebitis will enable a correct diagnosis to be made and appropriate reassurance to be given.

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